



**FEBRUARY 1996**

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Amateur Radio News Service

Pikes Peak Radio Amateur Association, Inc.  
P. O. Box 16521  
Colorado Springs, Colorado 80935

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# Ø BEAT



## Pikes Peak Radio Amateur Association Officers and Directors

President—	Rob Roller	WB7WHT	4848 Harlan Circle	Colorado Springs	80929	282-8284
Vice-President—	Doug Moloney	WBØMHP	3817 Vaquero Circle E.	Colorado Springs	80919	895-2767
Secretary—	Warren Hickey	W5YNE	12888 Tia Lane	Colorado Springs	80906	495-4471
Treasurer—	Mary Sales	KØØSHP	11716 Tracy Lane	Peyton	80831	749-0244
Ø-Beat Editor—	Jeff Boyes	NØJLH	3838 East Bijou Street	Colorado Springs	80900	833-5588
Board Member—	Ron Deutech	NKØP	4385 Ridgetown Drive	Colorado Springs	80918	893-8382
Board Member—	Jeff Ryan	NØWPA	6721 Northlance Lane	Colorado Springs	80919	288-8828
Board Member—	Gloria Ryan	NØZFX	6721 Northlance Lane	Colorado Springs	80919	288-8828
Board Member—	Harry Russell	NØSFP	11716 Tracy Lane	Peyton	80831	749-0244

The Ø-BEAT is published monthly in the interest of the members of the Pikes Peak Radio Amateur Association, Inc., PO Box 18521, Colorado Springs, Colorado 80935. For membership and subscription information see the last page of this publication. The Pikes Peak Radio Amateur Association meets monthly on the second Wednesday of each month at the Disabled American Veterans Hall, Chapter 25, 6580 Palmer Park Blvd. at 7 PM.

Deadline for submission of articles or advertisements is the 20th of each month. Submissions are accepted in any form. Articles should be sent directly to the Ø-BEAT Editor. Permission is granted to reprint articles provided credit is given to both the author and this publication.

Monthly advertising rates: Full page, \$45; Half page, \$24; Quarter page, \$12; Business card, \$5. These rates are billed quarterly. Send your advertisement requests and payments to: PPRAA, PO Box 18521, Colorado Springs, Colorado 80935.

## License Exams

License examinations sponsored by the PPRAA are held on the 2nd Saturday of February, April, June, August, October, and December.

Testing takes place at 9 A.M. at:

Denver Technical College  
225 South Union  
Colorado Springs

Everyone is seated on a walk-in basis. Those wishing to take an exam should bring the following items:

1. \$6.05 (preferably a check/money order made out to ARRL/VEC) for any exam other than element 1A or 2.
2. Picture identification.
3. A copy of your current amateur radio license, and/or a copy of any examination credit you have, as well as the signed original. We keep the copies.
4. A pen, pencils, and a calculator if you need one.

If you have any further questions please call Erik Mugele, KØØXE at 595-5345. Please do not call Denver Technical College.

## Committee Chairpersons/Contacts

Activity	Doug Moloney	WBØMHP	590-2757
Auditing			
Historian			
Interference	Bill Petty	NØNJX	591-2116
Membership	Les Borst	KØØNC	634-3995
Programs	Doug Moloney	WBØMHP	590-2757
Publicity	Aaron Pelouze	KØ6FLM	282-9715
Public Service	Mike Stansberry	KØTER	636-1290
Swapfest	Harvey Hunter	WA3EIB	597-8964
Technical Instruction	Al Bailey	ADØZ	597-8514
Trailer Custodian	Harry Russell	NØSFP	749-0244
VE Testing	Erik Mugele	KØØXE	595-5345
Ø-Beat Editor	Jeff Boyes	NØJLH	633-5650
ARES Liaison	Mike Stansberry	KØTER	636-1290
CCARC Liaison	Cory Nelson	KØØNMH	528-6696
RACES Liaison	Doug Jarmuth		520-0456
Skywarn Liaison	Steve Westby	WB7VHR	570-1070

## Reminder — General Membership Meeting

The next General Membership Meeting of the Pikes Peak Radio Amateur Association will be on the second Wednesday of this month at the Disabled American Veterans Hall, 6580 Palmer Park Blvd. The meeting will start at 7 PM.

## Zero Beat

### Minutes from the January 10, 1996 General Membership Meeting

The General Membership meeting was opened at 7 PM by the president Rob, WB7WHT upon determining a quorum of the membership was present. The treasurer's report was given by Mary, KBØSHP. As of 31 December 95, we have a balance of \$3609.24. In December, our income was \$126.00 and expenses were \$36.29. The minutes of the December 13, 1995 meeting as published in Ø-Beat were approved with an amendment to correct "WBØSHT" to "KBØSHP."

### Committee Reports:

**VE Testing:** Erik, KGØXE stated that the next regular VE Test Session will be held at Denver Tech Institute on Union Blvd. on Feb 10, 1996.

**ARES Liaison:** Mike, KØTER reported no activities this month.

**Public Service:** Mike, KØTER, reported no activities this month but he would be requesting support next month for the up and coming community service events.

**Interference:** Bill Petty, NØNJX, reported he tracked down a stuck transmitter on 145.01.

**CCARC:** Nothing new to report this month.

**Ø-Beat:** Jeff, NØJLH, reminded everyone that the cutoff date for articles for the next issue of Ø-Beat is 20 Jan. He asked the members to look at the new three column format and provide comments to him.

**Programs:** Doug, WBØMHP, announced that tonight's program was "HomeBrew Night" and next

month's program would be transmitter hunting antennas. Doug is still interested in receiving inputs on future programs.

**Swapfest:** Harv, WA3EIB, provided an updated status for the 20 Jul 1996 PPRAA Swapfest. Carlos, WBØREI, has volunteered to handle ticket sales. Rosie, WAØMNL will continue to handle the door prizes. We all must get out and sell tickets, if we are to have a successful 1996 Swapfest. A motion was made by Doug, WBØMHP and seconded by Jeff, NØWPA to approved \$1500 for prizes which will include an ICOM IC-706, ICOM IC-22 and a Kantronics KPC-3 TNC. Admission will be \$3.00. Tables will sell for \$10.00.

### Old Business:

Rosie reported that 91 members and guests attended our Christmas party. Greg, WA2OOD received a thank you note from Bob Rebek, AAØAZ for the gift that PPRAA sent him in recognition of the contribution he has made to the PPRAA.

### New Business:

Ron Deutsch, NKØP, reported that the Air Force Academy had not approved our requested Picnic or Field Day dates. They will do so only after they have processed all the requests from the Cadet Squadrons and AFA personnel.

**Hammy Award:** The Hammy was presented by Rob, WB7WHT, to Erik Mugele, KGØXE. Congratulations Erik.

The next Board Meeting will be held at the home of Doug, WBØMHP, on Monday January 15 at 7 PM. If you plan to attend please let Doug know.

**Program:** Home Brew Night. Lots of good projects were displayed. Members of ARES set up a number of packet stations in the DAV to demo Packet Cluster operations.

Respectfully submitted by Warren, WØYNE, Secretary

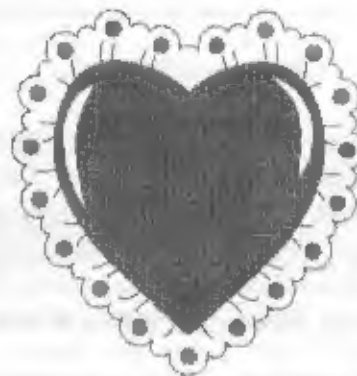
### Are you interested in building your own equipment?

What about getting together with  
others that share your interests?

Call: Scott KBØSLG at 579-0571  
or Carlos KBØREI at 632-1569.

### Welcome New Members

John Auer	KBØUMU 471-9747
Andrew Ferrara	WAØIBS 591-2170
Harry Gray	WAØTHB 473-6144
T. Darryl Hickey	KBØUVD 495-3221
Dick Huntrods	KJØIV 528-6131
Bill Larson	KGØXW 596-3501
Curt Neumann	KE6MJ 448-0363
Bob Snowden	NRØO 531-7907
Margaret Buchin	N3RDI
Bill Pierce	KDØJU 392-3783
Meryl Pierce	WBØRTF 392-3783



Love is in the air!

# Pikes Peak Radio Amateur Association

## OM/YL LUNCH BUNCH

The January get together was attended by 18 people.

Mike, WV7T, wife Rhoda, KB2BZY, and Smitty, WBØLTV, former PPRAA members, were among those in attendance.

Mike is on leave from the Navy before assignment in Chicago. He still speaks of the help and inspiration he received from our club over 25 years ago, when he became interested in Ham radio.

Smitty resides in South Dakota.

The next Lunch Bunch meeting will be February 15th at the HomeTown Buffet at Noon. HomeTown Buffet is located in The Shops At The Bluffs, 3650 Austin Bluffs Parkway.

We have a fun time at our get-togethers! See ya there!

73,  
Rosie Calaway, WAØMNL  
471-9965

### Attention DXer's!

Do we have any avid South American DXer's out there? I was approached by someone at a gas station who saw all my antennas. He wondered if I could work into Chile to help him contact a friend of his. I don't have the station to do that right now but maybe you do. If you can help, give me a call at 282-0204. Thanks. Rob, WB7WHT.

### From the Membership Chairman

As of 1/1/96, the membership files contain the following:

Total Members:	266
Total ARRL Membership:	148
By Class of License:	
Extra	36
Advanced	54
General	34
Tech +	24
Tech	107
Novice	6
No Call Listed	5
Over 65:	62
Family Memberships:	44

Les, KCØNC

### Minutes from the January 15, 1996 Board of Directors Meeting

The Board Meeting was opened at 7:05 PM by the president, Rob, WB7WHT, at Doug, WBØMHP's home. Members present were Rob, WB7WHT; Warren, WØYNE; Mary KBØSHP; Harry, NØSFP; Jeff, NØWPA; Gloria, NØZFX; Ron, NKØP; Doug, WBØMHP; Aaron, KD6FLM; and Jeff, NØJLH.

**Ø-Beat:** Everyone was reminded the cutoff date for the February issue of Ø-Beat would be 20 Jan.

**Swapfest:** July 20, 1996 is the firm date for this years' Swapfest.

**Field Day:** Ron explained that the Air Force Academy would not entertain anyone in the AFA Scouting area except Scouts. A final decision had not been made on any outside activities until all

the Cadet requirements could be satisfied.

A suggestion was made to serve coffee at the general membership meetings. Jeff, NØJLH will contact the DAV.

**Hammy of the Year Award:** The nomination committee put forth the names of the nominees for Hammy of the Year Award. Ron, NKØP was elected by the board.

Mary briefed on the \$231 returned state tax check. It appears it must be put back in the raffle fund account instead of the general fund.

Doug discussed the next membership meeting programs. They included DFing at the February meeting, GPS at the March meeting and 1.2 GHz Repeaters at the April meeting.

Mary presented a study she had done on ways to reduce mailing costs for the Ø-Beat. Jeff, Ø-Beat editor took the package and will take the next step to use the best money-saving method available to us.

The board looked at the budget format for the next year. Mary will put in the numbers for the next meeting.

The meeting was adjourned at 9:29 PM.

Respectfully submitted by Warren, WØYNE, Secretary.



**Words from the President:  
WB7 Wanna Help Tackle ...**

... this year's hamfest with Harvey (597-8964)? Harvey has a monumental task each year because, quite frankly, there's an incredible amount of work required to get a hamfest organized. And this year's 'fest has received more than its share of wrenches, so it'll be more than monumental. (What's a good word for "more than monumental"? Let Harv (597-8964) know if you find one.)

So, what exactly does Harv (597-8964) do? Most of us never know what work gets done until we actually go to the hamfest, see all the goodies for sale, and say "Hey, Harv! Great hamfest!" Well, first and foremost, Harvey (597-8964) has to find a GOOD location. How hard can that really be? Harv (597-8964) considers accessibility, parking, rooms for meetings and VE testing, cost, availability on a particular date, and much more. After the site's selected and contracted for, and only then, can Harv (597-8964) apply for the raffle license and print out tickets and flyers. Then Harv (597-8964) has to sell tickets and tables. So you ask, how do people find out about our hamfest (the best one in Colorado, I'm sure) so they can rent a table?

Well, good ol' Harv (597-8964) has to advertise. He sends notices to QST, CQ, 73, World Radio and more. He's got to try to pull in the big companies too. For example, how does one get Icom to show up at a hamfest? Harv (597-8964) will send out mucho letters to dealers and manufacturers. On Hamfest Eve, Harv'll (597-8964)

be out there setting up tables and microphones, putting up signs, and so on. Of course, on Hamfest Day, Harv (597-8964) will be there taking tickets, money, and stamping hands, and calling out raffle prizes. Later, after everyone's gone home, Harv (597-8964) will clean up the area, police the parking lot, and put away all the tables. Then he'll go home and start planning next year's hamfest.

But how does Harv (597-8964) do ALL of this? Does he wear blue tights and a red cape? (I'd like to see that!) Well, the truth is, it's all of YOU that do this with Harv (597-8964), not Harvey by himself. Problem is, not all of you have come out of the woodwork yet to give him a hand (as in helping hand).

You can give him another hand (as in applause) after the hamfest is over, too! I really appreciate Carlos, KBØREI, raising his hand at the last meeting.

But maybe you're new to the area or new to amateur radio and wonder how you can help, or maybe you don't know how to help. Well, wonder no more, 'cause Harv (597-8964) will help you figure that one out. Give him a call ASAP (597-8964)! The success of the hamfest is in OUR hands!

By the way, there's a subliminal message hidden in this message. See if you can (597-8964) find it.

Rob, WB7WHT

**Hey! YOU!**

Are you currently storing any Association property? If so, the PPRAA property custodian, Mike Stansberry KØTER, wants to know about it. Please give Mike a list of the property you are storing, as well as it's condition.

**Upcoming Swapfests**

Be sure to mark those calendars!

**April 6th**

Longmont ARC - LARCfest  
Boulder County Fairgrounds  
Call: Jim, NØXDA, 303-678-9748

**April 14th**

Aurora Repeater Association  
(ARA)  
Adams County Fairgrounds  
Call Judy, WDØHNP, 303-450-6910 or Janice, KA7TYU, 303-699-1944.

**July 20th**

Pikes Peak Radio Amateur  
Association (PPRAA)  
Liberty High School, Colorado  
Springs  
Call Harvey, WA3EIB, 719-597-8964  
Prizes include an IC-706, an IC-22A, and a KPC-3.

**Fox Hunt!**

Join in the fun the second Sunday of each month at 4:00 p.m. two miles east of Castle Rock. Meet at the Lutheran Church parking lot 1.5 miles south of Hwy. 86 on Ridge Road. Talk-in: 147.555 mHz simplex.



**Dits and Bits**

**Estate Sale (K4UBU):**

Kenwood TH415A HT (440 mHz)  
\$160

Kenwood TH25AT HT (2m) \$135  
2m glass mount antenna \$20  
440 mHz glass mount antenna \$20  
Bearcat 20/20 scanner \$60  
George WBØDUM 495-3983

**For Sale:**

Azden PCS-5000 2m mobile w/Tone  
\$225

Drake TR-72 crystal controlled,  
several crystals installed - excellent  
for packet \$75

George WBØDUM 495-3983

**For Sale:**

Kenwood TS440S  
Icom IC-25A  
Frank KL7IPV 597-2408

**Wanted:**

Professional Engineer willing to give  
reference for ham engineer applying  
for certification. Call Phil KA8ZKR  
598-2455

**For Sale:**

Swan 500C. Includes power supply,  
the VX2, and the original manual.  
Recently "tuned up" but not used  
much. Just got a Ten-Tec Argosy to  
do QRP. \$250.

386 motherboard. Includes 25 mHz  
CPU, 4MB RAM, and original  
manuals. It works. \$40.

Robert KBØPTR 535-1209 days, 593-  
8027 nights.

**For Sale:**

Several 12 volt, 80 amp-hour deep  
cycle gel cell batteries (New, in  
boxes.) \$50.00 each. Call Bill French  
W2SRQ 683-2770.

**For Sale:**

Tone Generator for Icom 25A. \$25.  
Call Frank, NØIEM 596-7980.

**El Paso County Roundtable's**

VHF - Tuesday evenings at 7:30  
PM local on 146.58 mHz.

HF - Sunday evenings at 7:30  
PM local on 3990.5 kHz.

Everyone is invited to check in.



**Happy Valentines Day**

**Does anyone know the REAL  
reason we are called hams?**

The truth is, no one knows for  
sure. I worked as Features Editor  
for QST Magazine at ARRL HQ  
for about 7 years, and this  
question came up from time to  
time. There are several proposed  
answers, none of which can be  
verified, and some that are quite  
unlikely.

Essentially, the consensus  
(between "official" researchers  
and knowledgeable old-timers) is  
that it's just a sort of slang term  
that became adopted in general  
use. It's most likely to have been  
originated in the infancy of  
Amateur Radio (probably before it  
was even recognized as such by  
any government agency or other  
official source). Of course, at the

very beginning, all radio was  
"amateur radio" because there  
was no such thing as commercial  
operation right at the outset of  
experimentation. Even Guglielmo  
Marconi often referred to himself  
as an "amateur."

When commercial interests began  
to operate radio stations for  
business purposes, there were  
still plenty of amateurs "sharing"  
the same airwaves and  
technology. In those days,  
remember, there weren't really  
any "bands" or "frequencies" in  
the modern sense; spark gap  
Morse code transmitters put out  
very broadbanded signals that  
weren't confined to a specific part  
of the spectrum. (And there was  
no FCC to stop them, anyway.) So  
amateurs and commercial  
operators often found themselves  
interfering with each other. It's  
widely believed that the  
commercial operators began  
referring to the amateurs as  
"hams" in the sense that they  
were merely "hamming it up" by  
operating their own personal  
stations just for fun and  
experimentation (in the sense that  
amateur actors are called "hams").  
There's also the opinion that  
commercial operators may have  
used the term in a pejorative  
sense by implying that amateurs  
sent code in an awkward or  
sloppy "ham-fisted" manner  
(although this doesn't seem likely  
because so many amateurs  
operators were equally or better  
skilled than their commercial  
counterparts, and many  
commercial operators had gotten  
into the business after spending  
some time operating as amateurs  
themselves.)

One popular theory on the origin of "ham" radio, although highly unlikely and in contradiction to certain known facts, is that there were three early radio operators whose last names began with the letters H, A and M, who built or operated an Amateur Radio station and used their initials as their self-assigned call sign. And there's another similar notion involving a shipboard station. So there remains no definitive, universally accepted reason why hams are called hams.

(Interestingly, in some countries, Australia, for example, Amateur Radio operators rather resent being called "hams" because they feel that it sounds like a bit of a put-down. In the US, however, amateurs have adopted the term as their own fond nickname for the hobby.)

And, by the way, there's no grammatical reason to capitalize all the letters as "HAM"; it's not an abbreviation or an acronym, simply a slang term for Amateur Radio (which is often capitalized to ensure that it is understood as an official and respectable government-regulated communication service—in fact, years ago, the ARRL Board of Directors decreed that Amateur Radio must always be capitalized when it appears in print in any League publications, and that convention has become largely the accepted form).

This is probably more than you wanted to know!

—Brian Battles, WS1Q, via the Internet

**This space could (should?)  
have been yours!!**



Remember this is your club's newsletter and with everyone working together we can make both the club and the newsletter even better.

**The ARRL Letter**  
**Vol. 15, No. 1**  
**January 12, 1996**

#### **FAR offers scholarships**

The nonprofit Foundation for Amateur Radio Inc plans to administer 57 scholarships for the 1996-97 academic year to help licensed radio amateurs with their post-secondary education. Eight of the scholarships are fully funded with income from grants and the foundation's annual hamfest in Gaithersburg, Maryland. Licensed hams are eligible if they plan to pursue a full-time course of study beyond high school and are enrolled or have been accepted at an accredited university, college or technical school. Awards range from \$500 to \$2000, with

preference given in some cases to those pursuing certain courses of study or to residents of specific geographical areas (Delaware, Florida, Maine, Maryland, New Jersey, Ohio, Pennsylvania, Virginia and Wisconsin). Application forms and information are available by letter or QSL postmarked prior to April 30, 1996, from FAR Scholarships, 6903 Rhode Island Ave, College Park, MD 20740. Contributions to FAR are tax-exempt.

#### **In brief:**

\* Five schools have been selected for participation in SAREX during space shuttle flight STS-76, tentatively set to launch March 21 for a nine-day mission that will include the third docking mission with Mir some 196 to 245 miles above Earth. The schools are Artesia (New Mexico) Public School; Troy (New Mexico) Middle School; S J Davis Middle School, San Antonio, Texas; Bethlehem Central Senior High School, Delmar, New York; and The University of Colorado College of Engineering and Applied Science in Colorado Springs. Two or more students at each of the selected schools will get to ask the astronauts questions during their scheduled radio contacts.

\* The ARRL QSL Service mailed a total of 1,428,850 QSL cards during 1995. That approaches five tons of members' cards.

\* Kantronics now has an e-mail account for customers to get technical support and service. Questions go to [service@kantronics.com](mailto:service@kantronics.com).

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## Pikes Peak Radio Amateur Association

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December 12, 1995

**Pikes Peak Radio Amateur Association**

P.O. Box 16521

Colorado Springs, CO 80935

Attention: Jeff Boyes/NØJLH, Zero-Beat Editor

Subject: Article for Ø-Beat Publication

There are allot of personally rewarding experiences in Amateur Radio and these experiences draws each of us together in a loose fraternal bond. Along with these experiences are special people who have made contributions to the hobby which go beyond the normal expectations of their peers.

Recently a young lady who was both physically and visually handicapped attended the Novice and Technician course offered in the Pikes Peak area. These handicaps led to new challenges for the course instructors. Soon after beginning the Novice class, the instructors realized the special needs of this student and the additional time required to properly explain the course concepts in the detail needed to understand the material. A relatively new ham, Pat Conner/KBØREF, saw the need for remedial training and volunteered to work with the handicapped student.

Pat spent many hours of her own time preparing training material to help the student grasp the many visual concepts that are part of our hobby. These included making electronic component schematic representations out of match sticks and cementing them on heavy paper stock in order to be prepared for potential test questions. In coordination with the ARRL authorities, Pat made cassette tape recordings of class material for review by the student. These recordings reinforced the concepts presented in the classroom and allowed the student to review the material for the examination.

In addition to the time spent on preparing the training aides, she attended the normal class sessions two nights each week and met with the student on two additional days for individual training. She has shown a real dedication to this hobby and deserves to be recognized for her efforts in this most difficult task. It is a pleasure to see someone give back more than they receive from the hobby!



Even with all the assistance Pat gave to this effort, the student continued to have trouble grasping all the concepts needed to pass the examination. Indeed, her first attempt at passing written element 2 ended in failure. Dave Hamilton, NØPRU, was asked to be a VE at the test session specifically dedicated to testing this individual. He also became involved with the special needs of this student and began to augment Pat's efforts during the technician phase of the class. In coordination with Pat, he met with the student one night per week and continued to review the class material in an effort to insure thorough understanding of the material. Between Pat and Dave dreams became reality and both element 2 and 3A were successfully passed. We now look forward to having a new ham in our community who has earned her operating privileges through hard work and dedication.

Pat and Dave certainly were the heroes of this story, but many other amateurs played an active role in making this all happen. A special thanks is extended to Erik Mugele, KGØXE, the PPRAA VE testing coordinator; and Bill Stansfield, K4YCD, PPRAA ARRL VE Liaison. Erik coordinated efforts to ensure enough VE's were available for each of the test sessions. This included three dedicated VE's needed to give our handicapped student an oral examination separate from the normal test group. Bill coordinated efforts to obtain a Braille test from the ARRL VEC for the second administration of Novice element 2. This allowed the student to not only hear the question and answers, but read the questions and answers in a format which she was accustomed. When it came to administering Technician element 3A, Bill went to the Deaf and Blind school in Colorado Springs and was able to have the test prepared in Braille. This has now opened up a new dimension to our test capability.

A thank you for a job well done is extended to all who were involved with this special effort. It is nice to see our community pull together when the need arises, but that is part of being a ham. We have seen it over and over again people helping people with dedication and care. It makes me proud to be part of this hobby and to be able to call on folks like Pat and Dave when they were needed most.

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## Pikes Peak Radio Amateur Association

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December 12, 1995

**Pikes Peak Radio Amateur Association**  
P.O. Box 16521  
Colorado Springs, CO 80935

Attention: Zero-Beat Editor

A Novice and Technician class for those persons wishing to obtain or upgrade an Amateur Radio License will be held in February, March and April of 1996. The classes are free to the general public; however, each class attendee should be prepared to purchase the ARRL "Now Your Talking" text book which costs approximately \$19.00. In addition to the text book, the Technician Class examination will cost \$6.05.

The Novice class will be held each Monday and Wednesday evening beginning at 6:00 P.M. on Monday, February 19th and ending on Wednesday, March 20th. The class will cover an introduction to International Morse Code and novice theory on amateur rules, regulations and operating practices. The class will also cover basic electronic, antenna and transmission theory required to pass the Novice Licensing Examination. Each individual who wishes to obtain their license should be prepared to attend each class for the five week period.

The Technician class will be held each Monday and Wednesday evening beginning on Monday, March 25th and ending on Wednesday, April 17th. The class will cover technician theory on amateur rules, regulations and operating practices; and electronic, antenna and transmission theory required to pass the Technician Licensing Examination. Each individual who wishes to obtain their license should be prepared to attend each class for the four week period.

Individuals who are handicapped and wish to attend the course should contact Sister Alberta at Handi-Hams Courage Center, (612) 520-0520 or (612) 520-0515 prior to taking this class. The Handi-Ham System has course materials available for those individuals who may have special needs in obtaining an amateur radio license. These materials must be obtained prior to attending the first nights class.

Those persons wishing to attend the courses should pre-register by contacting either Frank McNally at 596-8733 or Tim Nader at 260-1386 during the evening. The classes will be held at the International Tesla Society, located at 2220 East Bijou St. in Colorado Springs. Please do not contact the Tesla Society for class information.

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Uh oh the Groundhog  
saw his shadow. Six  
more weeks of winter.

**Membership Application**  
**Pikes Peak Radio Amateur Association, INC.**

P.O. Box 18521  
Colorado Springs, Colorado 80935

Date \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Call \_\_\_\_\_ License Class \_\_\_\_\_ Telephone \_\_\_\_\_

Are you an ARRL member? Yes \_\_\_\_\_ No \_\_\_\_\_

**One year membership rates. (Year starts with the month you receive your first issue.)**

Full Member \$15.00 \_\_\_\_\_ Family Membership (same address) \$18.00 \_\_\_\_\_

Over 65 \$12.00 \_\_\_\_\_ Family Both over 65 \$12.00 \_\_\_\_\_

Associate (outside El Paso or Teller Co.) \$12.00 \_\_\_\_\_ Newsletter only \$12.00 \_\_\_\_\_

Additional Names: \_\_\_\_\_ Call \_\_\_\_\_ Class \_\_\_\_\_

**IF THIS IS A RENEWAL PLEASE CHECK HERE:** \_\_\_\_\_

**PLEASE TYPE OR PRINT CLEARLY!**

**Please note:** Please submit a completed application form along with your check to the treasurer. This applies to new membership as well as renewals. Thank you.